

PATENT APPLICATION

IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In re the Application of

Eiichi TAKAHASHI et al.

Continuation Application of Application No.: 09/519,463

Filed: September 24, 2003

Docket No.: 105635.01

For: TIMING ADJUSTMENT OF CLOCK SIGNALS IN A DIGITAL CIRCUIT

INFORMATION DISCLOSURE STATEMENT

Director of the U.S. Patent and Trademark Office  
Washington, D.C. 20231

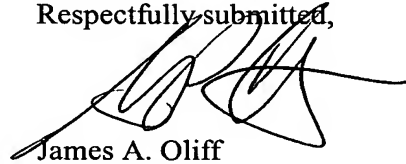
Sir:

Pursuant to 37 CFR §1.56, the attention of the Patent and Trademark Office is hereby directed to the reference(s) listed on the attached PTO-1449. Unless otherwise indicated herein, one copy of each reference is attached. It is respectfully requested that the information be expressly considered during the prosecution of this application, and that the reference(s) be made of record therein and appear among the "References Cited" on any patent to issue therefrom.

- ☒ 1. This Information Disclosure Statement is being filed (a) within three months of the U.S. filing date of this non-CPA application, OR (b) before the mailing date of a first Office Action on the merits in the present application. No certification or fee is required.
- ☒ 2. A co-pending U.S. patent application is identified on Form PTO 1449 of this Information Disclosure Statement. The Examiner is respectfully requested to consider each cited application and the art cited therein during examination of the present application.
- ☒ 3. The references were cited by or submitted to the Office in parent Application No. 09/519,463, filed March 6, 2000, which is relied upon for an earlier filing date under 35 U.S.C. §120. Thus, copies of these references are not attached. 37 CFR §1.98(d).

☒ 4. U.S. Patent No. 5,475,830 is a U.S. counterpart of JP-A-6-295319. Therefore, no English-language Abstract, English translation, or concise explanation of JP-A-6-295319 is provided.

Respectfully submitted,



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Date: September 24, 2003

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| Form PTO-1449<br>(REV. 8-83)                                                                                                                                                                                                                |  | US Dept. of Commerce<br>PATENT & TRADEMARK OFFICE                                                                                                                                                                                                                                               |         | ATTY DOCKET NO.<br>105635.01            |                 | CONTINUATION<br>APPLICATION OF<br>APPLICATION NO.<br>09/519,463 |  |
| INFORMATION DISCLOSURE STATEMENT<br><br>(Use several sheets if necessary)                                                                                                                                                                   |  |                                                                                                                                                                                                                                                                                                 |         | APPLICANT(S)<br>Eiichi TAKAHASHI et al. |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                 |         | FILING DATE<br>September 24, 2003       |                 |                                                                 |  |
| U.S. PATENT DOCUMENTS                                                                                                                                                                                                                       |  |                                                                                                                                                                                                                                                                                                 |         |                                         |                 |                                                                 |  |
| EXAMINER<br>INITIAL                                                                                                                                                                                                                         |  | DOCUMENT NUMBER                                                                                                                                                                                                                                                                                 | DATE    | NAME                                    | CLASS           | SUB<br>CLASS                                                    |  |
|                                                                                                                                                                                                                                             |  | 5,475,830                                                                                                                                                                                                                                                                                       | 12/1995 | Chen et al.                             |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | 6,269,451                                                                                                                                                                                                                                                                                       | 07/2001 | Mullarkey                               | 713             | 401                                                             |  |
|                                                                                                                                                                                                                                             |  | 4,697,242                                                                                                                                                                                                                                                                                       | 09/1987 | Holland et al.                          | 706             | 13                                                              |  |
|                                                                                                                                                                                                                                             |  | 5,224,056                                                                                                                                                                                                                                                                                       | 06/1993 | Chene et al.                            | 716             | 7                                                               |  |
|                                                                                                                                                                                                                                             |  | 5,719,515                                                                                                                                                                                                                                                                                       | 02/1998 | Danger                                  | 327             | 270                                                             |  |
|                                                                                                                                                                                                                                             |  | 6,578,176 B1                                                                                                                                                                                                                                                                                    | 06/2003 | Wang et al.                             | 716             | 2                                                               |  |
|                                                                                                                                                                                                                                             |  | 6,327,552 B1                                                                                                                                                                                                                                                                                    | 12/2001 | Namani et al.                           | 703             | 2                                                               |  |
|                                                                                                                                                                                                                                             |  | 5,077,677 A                                                                                                                                                                                                                                                                                     | 12/1991 | Murphy et al.                           | 706             | 62                                                              |  |
|                                                                                                                                                                                                                                             |  | 5,506,959 A                                                                                                                                                                                                                                                                                     | 04/1996 | Cockburn                                | 714             | 42                                                              |  |
|                                                                                                                                                                                                                                             |  | 4,796,259 A                                                                                                                                                                                                                                                                                     | 01/1989 | Troy                                    | 714             | 731                                                             |  |
| FOREIGN PATENT DOCUMENTS                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                 |         |                                         |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | DOCUMENT NUMBER                                                                                                                                                                                                                                                                                 | DATE    | COUNTRY                                 | CLASS           | SUB<br>CLASS                                                    |  |
|                                                                                                                                                                                                                                             |  | JP-A-6-295319                                                                                                                                                                                                                                                                                   | 10/1994 | Japan                                   |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | JP-A-10-21279 (w/Abstract and translation)                                                                                                                                                                                                                                                      | 1/1998  | Japan                                   |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | JP-A-9-330350 (w/Abstract and translation)                                                                                                                                                                                                                                                      | 12/1997 | Japan                                   |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | JP-A-7-134700 (w/Abstract and translation)                                                                                                                                                                                                                                                      | 5/1995  | Japan                                   |                 |                                                                 |  |
| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)                                                                                                                                                                      |  |                                                                                                                                                                                                                                                                                                 |         |                                         |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | AIST Press Release, "AIST Team Develops Genetic Algorithm-Based Method to Adjust Clock Timing that Allows Power Consumption to be Halved in High-Speed LSIs: Adjusted Clock Timing Provides Enhanced Clock Frequencies and Reduced Design Times", June 11, 2003 (in Japanese w/English Summary) |         |                                         |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  |                                                                                                                                                                                                                                                                                                 |         |                                         |                 |                                                                 |  |
| EXAMINER                                                                                                                                                                                                                                    |  |                                                                                                                                                                                                                                                                                                 |         |                                         | DATE CONSIDERED |                                                                 |  |
| Examiner: Initial if citation considered, whether or not citation is in conformance with M.P.E.P. 609; draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant. |  |                                                                                                                                                                                                                                                                                                 |         |                                         |                 |                                                                 |  |

Date: September 29, 2003

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| Form PTO-1449<br>(REV. 8-83)                                                                                                                                                                                                                |  | US Dept. of Commerce<br>PATENT & TRADEMARK OFFICE |         | ATTY DOCKET NO.<br>105635.01            |                 | CONTINUATION<br>APPLICATION OF<br>APPLICATION NO.<br>09/519,463 |  |
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|                                                                                                                                                                                                                                             |  |                                                   |         | FILING DATE<br>September 24, 2003       |                 |                                                                 |  |
| U.S. PATENT DOCUMENTS                                                                                                                                                                                                                       |  |                                                   |         |                                         |                 |                                                                 |  |
| EXAMINER<br>INITIAL                                                                                                                                                                                                                         |  | DOCUMENT NUMBER                                   | DATE    | NAME                                    | CLASS           | SUB<br>CLASS                                                    |  |
|                                                                                                                                                                                                                                             |  | 09/397,636                                        | 09/1999 | Tetsuya HIGUCHI et al.                  |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  |                                                   |         |                                         |                 |                                                                 |  |
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| FOREIGN PATENT DOCUMENTS                                                                                                                                                                                                                    |  |                                                   |         |                                         |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | DOCUMENT NUMBER                                   | DATE    | COUNTRY                                 | CLASS           | SUB<br>CLASS                                                    |  |
|                                                                                                                                                                                                                                             |  | JP-A-10-111861 (w/Abstract and translation)       | 4/1998  | Japan                                   |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | JP-A-3-117210 (w/Abstract)                        | 5/1991  | Japan                                   |                 |                                                                 |  |
|                                                                                                                                                                                                                                             |  | JP-A-6-3419 (w/Abstract with translation)         | 1/1994  | Japan                                   |                 |                                                                 |  |
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|                                                                                                                                                                                                                                             |  | JP-A-4-23172 (w/Abstract)                         | 1/1992  | Japan                                   |                 |                                                                 |  |
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| OTHER DOCUMENTS (Including Author, Title, Date, Pertinent Pages, etc.)                                                                                                                                                                      |  |                                                   |         |                                         |                 |                                                                 |  |
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| EXAMINER                                                                                                                                                                                                                                    |  |                                                   |         |                                         | DATE CONSIDERED |                                                                 |  |
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